

REMARKS/ARGUMENTS

This amendment is respectfully submitted in response to the Office Action dated April 21, 2004. The deadline for responding to the Office Action has been extended until October 21, 2004 by way of a request for an extension of time submitted herewith.

I. Introduction

Claims 1-27 are pending. Claims 2, 5, 9, 19 24 and 26 have been amended to rewrite the claims in independent form. Claim 27 has been amended so that it depends from claim 26 thereby overcoming the indefiniteness rejection since claim 26 includes a proper antecedent basis for "the preview module" recited in claim 27. In addition, claim 18 has been amended to clarify the subject matter being claimed. Support for the amendment to claim 18 can be found in the specification at page 36, lines 7-18 and elsewhere in the application.

In the Office action the Examiner objected to claims 2, 5, 9-12, 19-22, 24 and 26 and rejected claim 27 for failing to have a proper antecedent basis for "the preview module" recited in claim 27. As will be discussed below, the amendments to the claims overcome the Examiner's objections and rejection of claim 27.

With regard to prior art, the Examiner rejected claims 1 and 25 as being anticipated by U.S. Patent No. 6,434,196 to Sethuraman et al. (hereinafter "the

Sethuraman et al. patent"). In addition, the Examiner rejected claims 18 and 23 as being anticipated by U.S. Patent No. 6,100,940 to Dieterich (hereinafter "the Dieterich patent"). In addition, the Examiner rejected claims 3, 4, 6-8, and 13-17 as being under 35 U.S.C. §103 as being obvious in view of the Examiner proposed combination of the Sethuraman et al. patent and the Dieterich patent.

As will be discussed below, none of the applied references, when considered alone or in combination, anticipate or render obvious any of the pending claims.

**II. THE OBJECTIONS AND INDEFINITENESS REJECTION
HAVE BEEN OVERCOME PLACING
CLAIMS 2, 5, 9-12, 19-22, 24, 26 and 27
IN CONDITION FOR ALLOWANCE**

In the Office action the Examiner objected to claims 2, 5, 9-12, 19-22, 24 and 26 but indicated that these claims were directed to allowable subject matter and would be allowed if rewritten so as to no longer depend from a rejected base claim. In addition the Examiner rejected claim 27 for failing to have a proper antecedent basis for "the preview module" recited in claim 27.

Claims 2, 5, 9, 19, 24 and 26 have been amended to rewrite the claims in independent form.
Accordingly, claims 2, 5, 9-12, 19-22, 24 and 26 are now in condition for allowance since these claims, which were indicated to be directed to allowable

subject matter, no longer depend from a rejected base claim.

Claim 27 was amended to depend from allowable claim 26. Claim 26 provides a proper antecedent bases for the "the preview module" recited in claim 27. **Accordingly, the rejection to claim 27 has been overcome and claim 27, like claim 26 from which it depends, is in condition for allowance.**

III. Claims 1 and 25 Are Patentable over the Sethuraman et al. Patent

The Examiner rejected claims 1 and 25 as being anticipated by U.S. Patent No. 6,434,196 to Sethuraman et al.

Claims 1 and 25 are patentable. Claim 1 is patentable because Sethuraman et al. patent fails to disclose storing, **with encoded image data, encoding complexity level information indicating at least one determined level of encoding complexity associated with encoded image data.** Claim 25 is patentable for similar reasons.

A. Claim 1 is Patentable

In rejecting claim 1, the Examiner asserts:

Regarding claim 1, Sethuraman discloses:

-analyzing image data to be encoded to determine, for each image represented by the image data, a level of encoding complexity (col. 9, lines 27-34, teaches analyzing

image data by examining the number of bits allocated to a previously encoded information frame portion to broadly determine a complexity level of the previously encoded portion and, thereby, responsively predict a complexity level of a current portion to be encoded);

-encoding said image data according to a first encoding format to generate first encoded image data ...

-storing with the first encoded image data encoding complexity level information indicating at least one determined level of encoding complexity associated with the first encoded image data (Fig. 1:output buffer 160 for storing with the first encoded image data outputted from VLC 120 encoding complexity level information from rate controller 140 indicating at least one determined level of encoding complexity associated with the first encoded image data). (Office Action pages 2-3, bold and italics added for emphasis)

Applicants have reviewed the discussion of buffer 160 and its contents as well as the discussion of rate controller 140. Applicants have not found any support for the Examiner's contention that the buffer 160 stores **encoding complexity level information from rate controller 140** in addition to encoded image data produced by the VLC circuit 120. The output of Rate Controller 140 is not supplied to the output buffer 160 but is instead used to control quantizer module 115 which produces quantized DCT coefficients which are then subjected to variable length coding by VLC circuit 120. The Examiner has not explicitly identified any encoding complexity level information from rate controller 140 which is stored in buffer

160. Accordingly, the rejection of claim 1 should be withdrawn.

In view of the above remarks, it is respectfully submitted that Claim 1 is patentable because it recites:

A method of operating a system to process image data for storage and retrieval, the method comprising the steps of:

analyzing said image data to be encoded to determine, for each image represented by the image data, a level of encoding complexity;

encoding said image data according to a first encoding format to generate first encoded image data; and

storing with the first encoded image data encoding complexity level information indicating at least one determined level of encoding complexity associated with the first encoded image data.

B. Claim 25 is Patentable

Claim 25 is patentable for similar reasons that claim 1 is patentable. Claim 25 recites:

A system for processing data including at least one of image data and audio data, the system comprising:

an analysis module for analyzing data to be encoded and to assign one of a plurality of encoding levels of complexity to the data to be encoded;

an encoder for generating encoded data from said data to be encoded;

a file wrapper module for incorporating an encoding complexity level identifier indicating the encoding complexity level assigned to said data to be encoded and said encoded data into a single file; and

a data storage device for storing said single file.

In rejecting claim 25, the Examiner asserts that Sethuraman discloses:

- storing with the first encoded image data encoding complexity level information indicating at least one determined level of encoding complexity associated with the first encoded image data (Fig. 1: **output buffer 160 for storing with the first encoded image data outputted from VLC 120 encoding complexity level information from rate controller 140** indicating at least one determined level of encoding complexity associated with the first encoded image data). (Office Action page 3)

As discussed with regard to claim 1, **Applicants respectfully submit that the buffer 160 stores encoded video data but there is NO suggestion or teaching of storing encoding complexity level information in the buffer 160 in addition to the encoded image data.** Accordingly, the rejection of claim 25 should be withdrawn.

Applicants have been unable to find any rate complexity level information from rate controller 140 that is stored with encoded image data output from the VLC circuit 120 and the Examiner has failed to specifically identify such information.

If the Examiner persists in the rejection of claim 25, it is requested that the Examiner explicitly identify what the Examiner contends corresponds to a **plurality of encoding levels of complexity** in the

applied reference and where **encoding complexity level information is described as being stored in the buffer 160 in addition to encoded video data produced by VLC circuit 120.**

**IV. Claims 18 and 23 Are
Patentable over the Dieterich patent**

The Examiner rejected claims 18 and 23 as being anticipated by U.S. Patent No. 6,100,940 to Dieterich (hereinafter "the Dieterich patent").

1. Claim 18 is Patentable

Claim 18 has been amended to clarify the claim.
As amended, claim 18 recites:

A method of operating a system to process image data for storage and retrieval, the method comprising the steps of:

- performing an automated scene analysis operation on said image data to be encoded to generate image content information **said image content information indicating the type of scene depicted by said image data to be encoded;**
- encoding said image data according to a first encoding format to generate first encoded image data; and
- storing the generated image content information in a file with the first encoded image data.

The side information relied upon by the Examiner discussed in the Dieterich patent is information generated from evaluating the output of several

different encoders and may be, e.g., a recommendation with regard to a particular coding parameter for use by a subsequent encoder. (See, col. 3, lines 56-67). In the Dieterich patent, the side information **does not indicate the type of scene depicted by the image data**. Accordingly, the Dieterich patent does not anticipate or render obvious amended claim 18.

If the Examiner persists in the current rejection or issues a new rejection based on the Sethuraman et al. patent, Applicants respectfully request that the Examiner identify, with reference to a column and line of the applied patent, precisely what the Examiner contends is **an image** in the applied reference as it relates to claim 18, what is **a determined level of encoding complexity** in the applied reference as it relates to claim 18, and where in the reference does the reference describe **storing with encoded image data the encoding complexity level information indicating the determined level of encoding complexity** (identified by the Examiner in regard to claim 18)? In particular, what does the Examiner contend is the encoded image data and **what does the Examiner contend is the complexity level information stored with the image data?**

2. Claim 23 is Patentable

Claim 23 is patentable because it recites:

A system for processing image data for storage and retrieval purposes, the system comprising:

a scene analysis module for performing scene analysis on said image data to generate image content information;

means for receiving additional image content information from a user of the system;

an encoder for encoding said image data according to a first encoding format to generate first encoded image data; and

a storage device for storing the first encoded image data, said generated image content information and said additional image content information in a file.

In rejecting claim 23, the Examiner states:

Regarding claim 23, Dieterich discloses:

. . . .

- means for receiving additional image content information **from a user of the system** (Fig. 1: side information inserter 160) (Office action, page 5, bold added for emphasis)

Applicants have reviewed Fig. 1 and the text corresponding to side information inserter 160. **A review of Fig, 1 shows that all inputs of side information inserter 160 are produced, either directly or indirectly, from video 145.** There is no user input of side information shown in Fig. 1.

Thus, the Dieterich patent clearly fails to disclose, teach or suggest:

means for receiving additional image content information from a user of the system;

which is in addition to **a scene analysis module for performing scene analysis on image data.**

Accordingly the rejection of claim 23 should be withdrawn.

If the Examiner persists in the rejection of claim 23, or issues a new rejection of claim 23, it is requested that the Examiner identify what precisely the Examiner contends in the applied reference corresponds to **"a scene analysis module", "image content information", "means for receiving additional image content information from a user", and what the Examiner contends is the "additional content information".** Also, please indicate where "a user" is mentioned in the text of the application as supplying what the Examiner identifies as "additional content information".

Such information is needed so that Applicants can fully and fairly respond to any new or repeated rejection of claim 23.

**IV. Claims 3, 4, 6-8, and 13-17 Are Patentable
over the Applied Combination of References**

**A. General Discussion of the
Rejected Dependent Claims**

The Examiner rejected claims 3, 4, 6-8, and 13-17 as being under 35 U.S.C. §103 as being obvious in view

of the Examiner proposed combination of the Sethuraman et al. patent and the Dieterich patent.

Claims 3, 4, 6-8 and 13-17 are dependent claims. In rejecting each of these claims, the Examiner relies upon the reference as used to reject the independent claims in the anticipation rejections discussed above. As noted above, various elements are missing from the applied references making the anticipation rejection improper. **When combined, the combination of these references still lack the elements which were noted as missing with regard to the independent claims discussed above. Accordingly, alone or in combination, the references do not anticipate or render obvious the claimed subject matter.**

**B. Additional Reasons Particular
Dependent Claims Are Patentable**

1. Dependent Claim 3

In rejecting dependent claim 3, the Examiner relies on Dieterich as disclosing:

-storing, with the first encoded image data, image content description information generated by performing said content analysis operation (Fig. 6: buffer 690)." (Office Action page 6)

However, as discussed above with regard to claim 23, the Dieterich patent does not disclose or suggest this feature.

2. Dependent Claim 4

As noted with regard to claim 3, Dietrich does not teach image content information received **from a user** accordingly, it can not teach, disclose or suggest the storing of such information as recited in claim 4.

3. Dependent Claim 6

Claim 6 is patentable because it recites:

The method of claim 1, further comprising the step of:

selecting, based on the determined encoding complexity level information, an image represented by the first encoded image data, to be viewed after decoding.

While the Examiner rejected this claim and quoted the language of the claim, the discussion of the Dietrich patent regarding this feature does not disclose the recited claim elements as alleged by the Examiner. In rejecting claim 6, the Examiner states:

Regarding claim 6, Dieterich teaches:

. . . (col. 6, lines 57-63, teaches selecting an image data to be used as a reference for subsequent encoding, based on the determined encoding complexity level information as disclosed in col. 6, lines 37-39).

Applicants respectfully submit that **using a frame as a reference frame for subsequent encoding** has

nothing to do with **selecting, based on the determined encoding complexity level information, an image to be viewed after decoding**.

Accordingly, the rejection of claim 6 should be withdrawn.

If the Examiner persists in rejecting claim 6, please identify where the Dietrich patent discusses **viewing a selected frame after decoding** and where the **selection process of the frame to be viewed is described**.

3. Dependent Claims 7 and 8

Dependent claims 7 and 8 are patentable for the same reasons claim 6 is patentable. However claim 7 is also patentable because the Examiner has failed to show in the reference the step of:

decoding the encoded image data
representing the selected image to
generate decoded image data; and
displaying the decoded selected
image on a display device.

The Examiner relies on Fig. 7 of the Dietrich patent as showing the recited decoding step.

The decoding of Fig. 7 is performed as part of the encoding process to provide reference information used during encoding. **There is no output to a display device shown.** In fact, the only output of the Fig. 7 device is the coded output bit stream which is

consistent with the fact that Fig. 7 shows an encoder (which includes some decoder functionality which is used as part of the encoding process).

The Examiner cites Fig. 10 of the Dieterich as showing the display step stating:

...(Fig. 19: output device 1020 which can be a video monitor as disclosed in col. 16, lines 56-61).

Applicants respectfully submit that while Fig. 10 shows an output device which can be a monitor, the Examiner has not cited anything that suggests displaying an image on the monitor which is generated by the decoder element of the encoder Fig. 7.

Accordingly, just because the encoding system of Fig. 10 includes a monitor it does not mean that the elements of claim 7 are shown by the reference.

In view of the above discussion, it is respectfully submitted that the rejections of claims 7 and 8 should be withdrawn.

If the Examiner persists in the rejection of claim 7 or claim 8 which depends there from, it is requested that the Examiner explicitly identify what is the reference corresponds to "the selected image", where the decoding is described, and where the step of "displaying the decoded selected image on a display device" is described in the applied reference.

4. Dependent Claims 13, 14, 15, 16 and 17

Dependent claims 13, 14 and 15 are patentable because the Dieterich patent fails to make up for the deficiencies of the Sethuraman et al. patent discussed above with regard to claim 1 from which these claims depend.

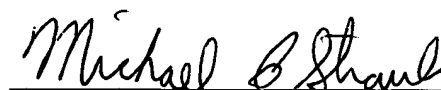
V. Request For Clarification

Should the Examiner repeat or issue new rejections based on any of the previously applied references, it is respectfully requested that the Examiner respond to the above questions requesting additional information regarding the rejections. The questions included above with regard to each of the various claims are intended to provide Applicants with additional information so that they can provide a more detailed response to any new or repeated rejection.

Applicants request that the Examiner support any repeated or new rejections with specific line and column cites to a reference or set forth any personal knowledge upon which the rejection is based in writing so that Applicants can have a full and fair opportunity to respond.

Respectfully submitted,

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Michael P. Straub, Attorney
Reg. No. 36,941
Tel.: (732) 542-9070